

NOAA Education Council Meeting

Date/Time: May 15, 2013 / 1:00–4:00 pm
Location: SSMC3, Room 7836
Dial-in: 866.901.0711
Passcode: 8134683
Contact: Lisa Iwahara (202) 482-3139, Sepp Haukebo (202) 482-9183

Adobe Connects Link to Meeting: <http://connectpro46305642.adobeconnect.com/edcouncil/>

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http://www.oesd.noaa.gov/leadership/edcouncil/docs/Audio_AdobeConnects.pdf

AGENDA

- 1:00 Welcome/Opening remarks - Louisa Koch (10 min)
- 1:10 Update on the Hollings and Undergraduate Scholarship programs (*Input requested*) – Marlene Kaplan (15 min presentation / 15 min discussion)
- 1:40 CONNECT @ University of NH: A peer mentoring program for multicultural, first-generation / low income first year undergraduates (*Input requested*) - Stephanie Bramlett/ sponsor Kate Thompson (15 min presentation/ 15 min discussion)
- 2:10 Break (20 min)
- 2:30 Department of Interior's STEM Strategy: Planning and implementation (*Informational*) – Maria Arnold/sponsor Shannon Sprague (20 min presentation/ 10 min discussion)
- 3:00 AMS Datastreme: Accomplishments and looking to the future (*Informational*) - Jim Brey and Beth Mills/ sponsor Christos Michalopoulos (15 min presentation/ 5 min discussion)
- 3:20 Updates and announcements
- 4:00 Adjourn

Upcoming Council Meetings:

All agenda items are tentative

June 19, 2013

- M&E WG: Improvements to Unified Data Call (Decisional) - John Baek and Lisa Iwahara
- NGSS WG: Progress report on NGSS guide for NOAA, demo projects, and training
- B-WET Evaluation update (Input requested?) – Seaberry Nachbar
- Planet Stewards Update (Input Requested?) - Peg Steffen
- Oceans Live and other distance learning initiatives (Input Requested?) – Kate Thompson

July 17, 2013

- M&E: Approve new outcome and output measures (July or August)

August 21, 2013

- NGSS: Progress report on NGSS guide for NOAA, demo projects, and training (Aug or Sept)

September 18, 2013

October 16, 2013

November 20, 2013

- NGSS: Progress report on training and any remaining business

December 18, 2013

- M&E: Present data summary

Attendance

In person: Louisa Koch (LK), Atziri Ibanez (AI), Bronwen Rice (BR), Carrie McDougall (CMc), Chelsea Berg (CB), Christopher B. Nelson (CBN), Christos Michalopoulos (CM), John Baek (JB), Judy Koepsell (JK), Kate Thompson (KT), Maria Murray (MMu), Lisa Iwahara (LI), Marlene Kaplan (MK), Paulo Maurin (PM), Ron Gird (RG), Sepp Haukebo (SHa), Steve Storck (SSt), Sandy Sarvis (SSar), Victoria Dancy (VD)

On the phone/chat: Jennifer Hammond (JH), John Baek (JB), John McLaughlin (JMc), Molly Harrison (MH), Osaretin Obaseki (OO), Paula Keener-Chavis (PKC), Rochelle Plutchak (RP), Sarah Schoedinger (SSch), Seaberry Nachbar (SN), Shannon Sprague (SS), Stephanie Bennett (SB), Tracy Hadjik (TH)

Presenters/guests: Kwame Macintosh (Kwame) – Evaluation Intern in the Office of Education, Maria Arnold (Maria) – DOI, Jim Brey (Jim) AMS DataStreme

Online presenter: Stephanie Bramlett (Stephanie) – UNH Connect

Welcome/Opening Remarks (LK)

- I was invited by OAR to participate in their Hill briefing regarding how Sea Grant, and particularly the Knauss fellowship was being affected by the Administration's STEM consolidation proposal. The Knauss fellows and alumni are an incredibly powerful resource for NOAA. We have people in many ocean-interested offices that are interested in the STEM education realignment and what that means for NOAA education. They are taking their work very personally.
- I was also asked to brief Kolo Rathburn, a former Knauss fellow, now working for the Vice Chairman (Senator Shelby R-AL) of the Senate Committee on Appropriations (minority). He has lots of questions about what this means for Alabama and for NOAA and STEM education more broadly.
- I am continuing to have conversations with Department of Education (DEd), NSF, and Smithsonian.
 - For example, NSF said they are happy to integrate NOAA materials into their programs so I've asked for a list of those opportunities as well as a timeline, and how many students we might expect for NOAA. NSF can't promise NOAA any students because they run competitive processes, but if we get actual program names and have the timeline to integrate NOAA content into their offerings, which will be a wonderful opportunity no matter what. I sat down with OMB and talked with them about the DEd. I communicated: NOAA is very interested in leveraging all of the DEd's funding that has any connection to Science, Technology, Engineering, and Math; we needed to sit down with them and figure out how they can make

- those programs more welcoming to mission science agencies; and we would like more details on the Education proposal for the STEM Innovation Network. They will get back to me on these items.
 - Smithsonian stated they are going to set up a workshop about how we can co-develop content with them but I have not heard anything about dates on that. I will be looking to pull people in on those so that we make sure we make the right connections as we move forward.
- As for how the Hill is currently reacting, it will be difficult to walk away from this proposal entirely. They are interested in why the Administration proposed this and they too are concerned why the federal government needs over 200 STEM education programs. People are looking how to reduce that number of programs. This is still an active conversation.
- We have the Co-STEM strategic plan that you received on Saturday. We need to turn that in today and I did not get very much back from everyone. It is a difficult thing to sit down with that report and comment on it. As I was going through the material I realized they gave us a table with FY12 and FY13 numbers on it. To be clear, we did not give them numbers with FY12 and FY13 on it. So yesterday Lisa and Christos sent out an email to all of you with rapid response required. We know those kind of drills are unpleasant but truly appreciate everyone stepping up. I do not want OMB reporting incorrect numbers and assuming there is more STEM money in the FY13 budget than there actually is, according to the STEM definitions. We need to stay on top of this and report as accurately and quickly as we can.
- We had a well-attended internal briefing for NOAA staff on the proposed STEM realignment. Your comments during that were helpful. People are concerned about Nancy Foster and that also came up today on the Hill. The fact that those are multi-year commitments was brought up and people are interested. There was interest in why the NERRS went away and did not return.
- We also had a well-attended external briefing; Lisa will follow up with an email soon. It was a useful conversation and I used several of the comments in the Co-STEM strategic plan. We expect that plan to come out next week. They are looking for all the agencies to get their comments in by COB tomorrow (5/16) so our material has to move to leadership before that.

Action: Lisa will send out a follow up email about the external briefing.

Action complete

Update on the Hollings and Undergraduate Scholarship programs (*Input requested*) – Marlene Kaplan (15 min presentation / 15 min discussion)

- JB – Kwame Macintosh is our American Evaluation Association – Graduate Education Diversity Intern (AEA-GEDI). That is a program AEA runs to bring diversity to the evaluation field by providing opportunities in evaluation. He has just graduated from Howard University with a master's degree in social work. Part of the program is that he works with us on a semi-independent evaluation project. He has worked with Marlene's program data and he'll be discussing his findings today.
- MK – We are talking today about the Hollings and EPP program. We wanted to provide an update on where we are and where we are headed.
- MK – The Hollings students will be here next week and will have time for interviews. If you have opportunities for these students please email Victoria Dancy or myself.

Action: Email Marlene Kaplan or Victoria Dancy if you have a research opportunity for the summer Hollings interns here in Silver Spring.

Due Date: COB Wednesday 5/29

See presentation

- MK – I want to thank Kwame for his work. We have had this survey data for years now.
- PM – Is it correct that this is only a post treatment assessment?
 - Kwame – That is correct. This year we want to implement an orientation survey in order to track over the course of the program how their views change.
 - MK – We've added this to the orientation survey asking what students see themselves doing after graduating.
- AI – I see you have combined numbers for Hollings and the undergrad. What is the breakdown between those working in the education areas vs. those working in STEM areas?

- MK – That is all future work for us. Once we get an evaluator on board we want to ask what the research questions are that we want to answer? We're focusing the evaluator initially on the Hollings program because that is the specific OMB request. However, we want to eventually look at impacts for both Hollings and the undergraduate program.
- PM – Will we also look at the type of work they are doing here at NOAA so that we can determine what sort of experience correlates to certain results? It would be nice to get a picture of the “ideal” Hollings scholarship experience, especially for us within NOAA to serve as a model.
 - MK – We will have to work with an evaluator to determine the specific questions but there is a number of great questions we would like to ask, our resources are our only limitations.
- AI – Some of us are very interested and would be happy to look at future questions. Our office is one of those that are taxed to fund this program and therefore we are being asked what is coming of this funding. Some people are very critical of this tax and so it would be nice to get information that can correlate to each office if possible.
 - MK – Once the evaluator is on board and has had some time to orient his/herself we will have an input session where everyone can recommend their own specific questions.

See presentation (Slide 10)

- MK – So do we want to develop educational internships that are research based or do we want to develop new criteria for judging those education internships?
- KT – I would like to see other criteria developed. We had a Hollings scholar that did great work for us as an education intern. She also gave a great presentation. I would like to have different criteria because we do need these students to come in and help us. Maybe we need an evaluation component for them to work on.
 - MK – It would be great to have more concrete projects for those students as well as something we can report out.
 - KT – Another project would involve the Next Generation Science Standards, we have so much to convert. That would be great for these scholars.
- AI – I second what Kate just said and have a separate question. For the education interns of 2013, how many opportunities were there on the table? It would be great to get a sense for demand.
 - MK – About 7 were put on the table and 4 were picked up. Most of those were placed in Hawaii so we had to cap the number we approved. More may have been approved but we wanted to cap the amount of travel to Hawaii.
 - AI – I submitted 7 from NERRS.
 - MK – Our numbers may be off then let us get back to you on that.
 - AI – I'm just curious how many of the opportunities are picked up by the students compared to how many are on the table. We may also need help in marketing those positions to people that might have education degrees or interests.
- MK – We will get back to everyone by the end of summer on that criteria change. I just want to finish with an announcement that a large group of our Hollings scholars got to visit Senator Hollings in South Carolina recently.

CONNECT @ University of NH: A peer mentoring program for multicultural, first-generation / low income first year undergraduates (*Input requested*) - Stephanie Bramlett/ sponsor Kate Thompson (15 min presentation/ 15 min discussion)

- KT – The Nancy Foster Program is for women and minority students. We wanted to find a way to better reach the underrepresented students out there and were connected to Stephanie Bramlett at the University of New Hampshire, the director of the CONNECT program there. She has developed some best practices for CONNECT.
- Stephanie – Thank you all for this opportunity. I would like to talk a little about our program and then allow some time for questions on how NOAA can partner with other programs like CONNECT.

See presentation

- Kwame – I actually went through a similar program in my undergraduate and I received financial help as well. I was wondering if you had looked at how the financial aspect affects the other 4 areas, specifically if retention is affected when students cannot financially afford to stay in the program even if the other areas are still working well?

- Stephanie – I don't have any hard data with me on this. But in terms of financial insecurity, when students can't afford to enter school is getting involved in programs that can provide financial support. Even just that little financial boost can help to apply for other scholarships and fellowships. It is important though that this assistance is provided early. I encourage universities to provide this in the freshman or sophomore level rather than the junior or senior level.
- KT – What are LSTAMP and McNair?
 - Stephanie – LSTAMP is the Louis Stokes Alliance for Minority Participation and it is more popular in the Carolina, DC, and Virginia area. It is a program for students coming out of high school that are interested in STEM areas. It is a whole or partial scholarship for college and once they get on campus they enroll in a similar program to CONNECT where they arrive on campus 2 weeks early, brush up on skills and begin to view themselves as an academic cohort. The McNair program is a student support field program that focuses on first generation, underrepresented students in graduate school, helping them get to their doctorate. It is on many campuses across the US and has had a great success rate in getting these students to graduate with their doctorate.
- JB – When you say first generation you mean first generation college student correct?
 - Stephanie – Yes.
 - JB – In terms of barriers and factors you identify, you lump all 3 together. Does your work look at the intersection of all 3 or each separately? Also, do the factors apply across those 3 groups?
 - Stephanie – I'm really looking at the intersection. The trifecta of being a first generation college student, a low income and multicultural college student. These are the most at risk groups in the university.
- MK – We are looking at attracting more underrepresented groups in our Hollings undergraduate program. In addition to an outstanding GPA we look for a story or experience on why they are interested in ocean or atmospheric sciences. This relates to your comment on getting these students early on in their career, whether high school or early college. So we are interested in having you sending some of your students our way.
- Stephanie – Definitely, that early experience is really important. To highlight one of our programs at UNH, we have the McNair program here and technically the students don't apply until their sophomore year. They put in a proposal, get a faculty advisor, and start their student research their junior year. In order to get students interested in that program, waiting until sophomore year is difficult, they don't know what they're missing until then. So we started a McNair first year program that rolls right out of the CONNECT program. Students learn about it on the first day of CONNECT, they see upper classmen walking around with their McNair sweatshirts and those upper classmen talk about their experiences and how much fun they had over the summer with the CONNECT students. So these students hear about this opportunity on their first day and it has had a great affect on their academic performance. These students also go through a less extensive application process because the program already knows them and they have already had experiences there.
 - MK – Well we would love to have them apply for our program especially hearing that they have had early college experiences in the field.
 - KT – We went to their CONNECT group and gave a presentation on all of NOAA's opportunities.
- CM – How many students do you have in the program and how do you fund it?
 - Stephanie – 100 students come into the program and it is fully university funded. We work closely with McNair, which is a combination of federally funded TRIO grants and the university.
- LK – Thank you so much for joining us.

Department of Interior's STEM Strategy: Planning and implementation (*Informational*) – Maria Arnold/sponsor Shannon Sprague (20 min presentation/ 10 min discussion)

- SS – I'm happy to introduce Maria Arnold. She is with the Office of Youth Partnerships and Services at the Department of Interior (DOI). There she focuses of youth engagement, education, and on climate with a specific focus on environmental education as well as STEM education. I worked with her as we developed a federal environmental literacy strategy for the Chesapeake Bay Executive Order in 2011. I really learned a lot on how the DOI works with a large network of parks and reserves and how they are working to coordinate all that with a focus on environmental and STEM education. Today she is going to share some of that information with us.
- Maria – Thanks everyone for letting me join today.

See presentation

- Maria – I also wanted to talk about metrics. We have tried to develop measurable objectives but we ultimately took them out because this is a no new money plan. We thought it would be difficult to put in expectations for measuring

and metrics when we can't provide the resources and funding to do that. With saying that I would like to take any questions.

- AI – How do you define stewardship?
 - Maria – I don't think we have tried to define that, it is such an accepted term that we didn't try. Its interesting though because USGS is strictly a science mission agency without the stewardship role.
- KT – DOI is at the highest level and then you have all these bureaus at the lower levels, where they all at the table when you developed this?
 - Maria – Everyone except for the Office of Surface Mining but they are engaged now.
- SB – Looking at the mission statement, is the focus on outdoor learning?
 - Maria – This is tricky because USGS doesn't have as much outdoor learning as they do indoor laboratories, so we often used the term facilities for those that don't have outside options. In general we tried to be inclusive of everyone but of course not every bureau will fit perfectly.
 - KT – To me the outdoor learning involves mostly informal learning. Do you also take some of your materials into the classroom or use them at visitor centers?
 - Maria – Most of the outdoor informal, experiential learning is with National Park Service, Fish and Wildlife Service, and Bureau of Land Management. The other bureaus are interested because they can reach older students through internships but they also recognize the importance of incorporating younger groups in these outdoor activities. As for the wording, using "outdoor" I'm not sure if that ever specifically came up. Throughout this process we focused on what our unique assets are and we always thought of the public lands, this is most likely why we used outdoor in the overall picture.
- SSch – Given the focus your plan has on STEM education, what will the administration's STEM consolidation plan mean for your implementation of this plan?
 - Maria – As far as I can tell, the 4 programs of DOI that were listed in the last inventory are not listed among those to be eliminated. Right now those will stay in place. Also, we had a hard time finding budget line items that fit the definition of Co-STEM. For example National Park Service, each park superintendent decides if they will have an education component. If they decide to spend their own money on it? Do we need to create an FTE or is it more appropriate to have a partner come in and run education programs on that site? The decisions are local; there are not funds that come down from headquarters. It is so decentralized that we don't have reporting systems for those. In the big picture it is hard to identify and eliminate. Also, the Co-STEM definition was looking at programs that had been run for more than a few years. Our local sites may have money for an education program or intern this year, but they might not next year.
- AI – Based on this answer, what was the decision behind developing a STEM strategic plan?
 - Maria – When Co-STEM requested us to submit our STEM education mission we scrambled because we had never answered that question. The decision to create this plan was made to exhibit our role in mission science and to have a seat at the STEM table, even though our assets look differently than those with funding streams.
- KT – Do you have any mandates to do education?
 - Maria – Out of the 10 bureaus, most of them do not have education authority. We can do outreach and several other things that are not under the STEM definition. Another thing is that several of our bureaus were concerned because their education role is not in just STEM, history is a huge component of our parks. Some people have developed a visceral reaction to STEM.
- SSt – We have embedded our STEM education, workforce related strategic plan within a larger education strategic plan, as a specific goal. Within DOI you don't have a larger education strategic plan.
 - Maria – When Salazar created our office around youth education and employment there was not a centralized focus on education, but overall we don't label certain things STEM.
 - SSt – In the DOI strategic plan there is a specific goal that discusses workforce and mentions education.
 - Maria – Most of this plan falls under the umbrella of developing a 21st century DOI. A lot of the strategies under that are tied to youth hiring, which is one of the secretary's main goals. Education has not had a lot of attention because of this but our future direction involves much more education focus.
- LK – Thank you for presenting Maria.

**AMS Datastreme: Accomplishments and looking to the future (*Informational*) - Jim Brey and Beth Mills/
sponsor Christos Michalopoulos (15 min presentation/ 5 min discussion)**

- CM – Jim and Beth are here today to talk with us about American Meteorological Society (AMS) DataStreme, a long-standing partnership between NOAA and AMS. It is a significant teacher PD effort with very strong cohort of

dedicated teachers. It employs innovative methods including the concept of learning communities and has a large emphasis on the use of NOAA data. This effort has funded by NOAA as part of a direct bill for many years, unfortunately in 2013 those funds have been victim to the budget cuts. We are interested today in hearing what the program has done in the past and how they plan to continue in this current climate.

See presentation

- LK – Thank you for presenting and fighting forward in these difficult times.
- JB – Do you track how much the teachers use your material back in the classroom?
 - Jim – That was part of our plan and we were going to gather the anecdotal data but I'm not sure if that data will be analyzed. Right now I am focused on selling books and finding other sources of money.
 - LK - Has NASA also pulled funding?
 - Jim – It has not pulled it, we have a grant that will expire in October. We are still working a number of angles with them, perhaps in FY14 the Roses solicitation will be put in, but it will be very competitive. We have word that NSF funding will continue. Navy is also supporting us for STEM education but it happens at the Naval Academy. We don't know what will happen with Project Atmosphere.
- AI – I'm curious about your pedagogical approach in the use of the data and if you speak about the response of the teachers in using the data, archived or real-time.
 - Jim – Their foundation is based on the textbooks, which are as good as any commercial book in the college market. The investigations manual works with the teacher to get them thinking and working with the real data. The investigation continues with the component on the web that we wrote that week using real time data. They work on those lessons and submit them to their mentor who grades it. In this way they proceed through the 12-week course. Over many of those years we have adapted the approach to those teachers, all the time learning from them. If something happened in the news we made sure that the teachers understood it and could teach on it in the classroom. Additionally important was that we treat them like a colleague.
- CMc – What is your relationship with the Weather Channel? I ask because NBC purchased the Weather Channel and they have had some interest in funding STEM education through their NBC learns initiative.
 - Jim – We have had a great relationship with the Weather Channel when they were on their own but have not thought of that approach. We have also had a lot of lit leaders that have done this for free so it will not die entirely. I have 12 employees in my office to keep afloat.
- SB – Can you explain the roles of the emergency managers in the PD process? Also what is the spread of teachers trained across the nation?
 - Jim – We used to be in all 50 states but had to cut back using online material. Some take the course entirely online. As for emergency managers, we introduced the teachers to those people so they could increase dialogue, but mostly they are there as a participant in the program to also foster dialogue.
- RG – Has AGI experienced similar fall out? Also, are you looking at new partnerships where it may be beneficial to share resources?
 - Jim – I don't know what is happening to AGI but we are always looking at new partnerships. We are interested in individuals and groups, but the partnership needs to have a payoff in this stage of ours.

Updates and announcements

- CB – We are moving forward with the selection of the 2014 Knauss fellows. Included in the announcements to local directors was some strong wording on the possibility that this may not move forward next year. The current class has a brown bag series that everyone is welcome to attend. Sea Grant is also hosting a brown bag on Friday on sustainable working waters toolkit.
- RG – The National Academy of Public Administration has released their review of the Weather Service operations, a high level review. They are calling for more engagement with the outside community, not less, to make the Weather Ready Nation campaign a success. They want greater communication with the outside world but we are now in a position where we cannot do that.
- SSt – yesterday we discussed the environmental literacy and decided to incorporate it as an individual component of the broader conceptual framework. We also need to put together a task force to define environmental literacy. Also there was good support for the goal on science literacy, dealing with a science informed public.
- JH – Teacher at Sea report, the 2013 cohort is sailing and blogging, looking forward to this season.
- SSch – Bob sent out a query about attendees to the NMEA this summer. If you haven't seen or responded to that email please look into it.

- CM – We need to look at the numbers of federal staff in case we reach the threshold and need to submit for approval, like we did with NSTA.
- SN – B-WET update: all programs have received their budgets and we are working on getting our selection packages in during the next 2 weeks. All the coordinators are working quickly to get these grants through.
- JM – NASA currently has their solicitation for a new group to run the GLOBE implementation office. Letters of intent are due May 22nd so let anyone know who is interested.
- SHa – John M. and I sent out the draft version of the citizen science community of practice survey. We had some good feedback from a few Ed Council members and plan to send out the finalized survey by the end of this week and hope to get some information from the field on that in the next couple weeks.
- LI – Thank you for all your help with the taskers.
- AI – For the reserves we are excited to be moving ahead with some of the teachers in the estuaries training this summer. I have participating in some of the online focus groups and it has been an interesting process using the technology in this manner. On a separate note the new Coastal Office strategic plan has been shared across NOAA, if you have not seen a copy, it has been public for over a month now. I will make to share that with everyone if you have not seen it yet.

Action: Atziri will share with everyone the final copy of the Coastal Office strategic plan.

- KT – We will be doing Oceans Live from Capitol Hill Oceans Week so if you are interested in watching online you can see all the panels online. At noon we will be sitting down with representatives of different constituent groups asking them some big questions about ocean policy today and what their take on it is. We will have reps from NGOs, government, federal employees, and industry.
- CMc – The Exploratorium is open in their new pier location and they hosted their first large NOAA vessel, the Bell Shimada. They also have a NOAA buoy sitting in the water taking readings between the piers. The Bell Shimada will return at the end of June offering public tours. At the same time we will have the NOAA Days celebration using local NOAA staff. If you find yourself at the Exploratorium your NOAA badge gets you in for free. It has been a great partnership for NOAA and we are getting great media coverage through them. You may also notice that the window tinting is in place for the Science on a Sphere here in Silver Spring. We're hoping for an installment here in August so stay tuned. We are also still in the running to be the 100th sphere.
- LK – Thanks all.